

Atlanta Ham

OFFICIAL PUBLICATION OF THE ATLANTA RADIO CLUB, W4DOC

JANUARY 2003

SPECIAL EVENT, SPACE CONTACT TO MARK MARCONI TRANSMISSION CENTENNIAL

Source: ARRL Letter December 27, 2002

Special event station KM1CC will be on the air January 11-19, 2003, to mark the 100th anniversary of Guglielmo Marconi's inaugural wireless transmission between the US and Great Britain January 18, 1903 (January 19 UTC). On that date, from the sandy Cape Cod cliffs overlooking the Atlantic, Marconi--using a powerful (35 kW) rotary spark transmitter coupled to a massive antenna system--transmitted a 54-word greeting from President Theodore Roosevelt to England's King Edward VII. The monarch promptly acknowledged receipt of the message via land line and cable, literally igniting the spark of global communication.

The Marconi Radio Club, W1AA, and the Marconi Cape Cod Memorial Radio Club, KM1CC, are working in partnership with the National Park Service at Cape Cod National Seashore to organize the celebration. The special event will take place at the former Coast Guard station at Coast Guard Beach in Eastham, Massachusetts, which is near the original Marconi site. Operation will include several amateur modes, including SSB, CW, FM, digital and satellite.

Marconi Radio Club President Robert J. "Whitey" Doherty, K1VV, says operators will be on the air 24 hours a day from January 11 through January 19. "We have a half dozen operators who will live at the

(Continued on page 4)



Members of the Atlanta Radio Club are treated to an incredible buffet during the annual holiday party in December.

DUES ARE DUE...

Your support of the Atlanta Radio Club is very important. The Club has many ongoing projects that it supports.

If you have not renewed yet, use the form on page 7

GWINNETT ARS 6TH ANNUAL TECHFEST

Tech Fest will be Saturday, January 25 2003. Setup is at 9:00 am, and the event is from 11:00 am to 3:00 pm. First United Methodist Church in Lawrenceville
147.075(+) MHz 82.5 PL Tone

Established as a means of exchanging information and ideas on some of the many facets of amateur radio. Displays in past years have included making QSL cards, satellite radio, antenna building, soldering, proper use of some test equipment, kit building, Slow Scan TV, "free" TV, computer programming of radios, generators, batteries, AM modulation of a simple laser pointer, APRS, PSK-31, QRP, DXing, etc. etc. Lots of fun. (And FREE.) Also include a chili cook-off, hamburgers, hot dogs, etc. Stayed tuned to GARS talk-in on your trip in to be notified of any changes to the event schedule.

THE ATLANTA HAM

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Atlanta Radio Club
Attn: HAM EDITOR
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Contact the editor for available formats to transfer material.

DEADLINE FOR SUBMISSIONS IS THE 21ST OF EACH MONTH!

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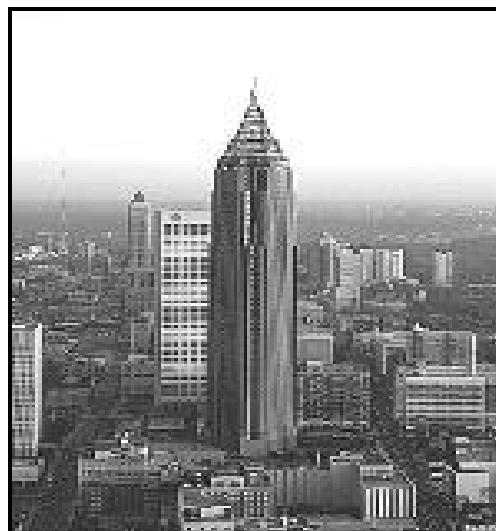
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THE ATLANTA RADIO CLUB, W4DOC

Originally known as the "Atlanta Wireless Club," the Atlanta Radio Club is one of the oldest and largest amateur radio clubs in the United States. With nearly 200 members, the Club sponsors numerous activities and services for its membership and for the Atlanta area amateur radio community.

The Club is best known for its sponsorship of the annual Atlanta HamFestival, a Saturday event which hosts many vendors, exhibitors, and flea marketers of amateur radio equipment and other electronic equipment.



Bank of America Tower
Site of Atlanta Repeaters:
146.82(-), 224.34(-) and 444.825(+)

W4DOC REPEATERS

The Atlanta Radio Club operates five repeaters at two locations. Currently our most active project is at the Bank of America Tower where we operate three repeaters at 146.82(-), 224.34 (-), and 444.825(+). On the web, go to <http://www.saf.com/arc/repeater.pdf> for a Acrobat 4.0 diagram of our system.

Our second location is the WFOX broadcast tower at Chestnut Mountain, south of Gainesville, GA. We operate two repeaters on 145.35(-) & 444.45 (+) . These repeaters are being renovated under the expert guidance of Dennis, KF4MHW. For pictures of that site, see <http://www.saf.com/arc/wfox.html>

The current schedule for net operations include the Sunday Night Net on 146.820 (Linked to 145.35 on FOX) at 8PM EST and the Southeastern VHF Net on Wednesday evenings at 9PM. The 146.820 machine can also be dialed into IRLP and SKYWARN/Peachtree City during inclement weather.

ASSOCIATE ORGANIZATIONS



MEETING NOTICE

WHEN: Thursday January 9, 2002 7:30PM
WHERE: Red Cross 1955 Monroe Drive – Atlanta

PROGRAM: Tom Crowley, KT4XN
An introduction to Radio Astronomy

TALK IN: 146.820 (-) PL 146.2

DINNER: 6:15PM The Picadilly Cafeteria
1544 Piedmont Rd – Ansley Mall

FCC INITIATES REVIEW OF GEORGIA ARRL VEC EXAM SESSION

Source: The ARRL Letter 12-20-02

The FCC has initiated a review of a June 2000 ARRL VEC examination session in Pelham, Georgia. At that session, an examinee who had unsuccessfully attempted to pass Element 2 (Technician) seven times at other exam sessions got a perfect score on Element 2 and also passed the Element 3 (General) exam.

The applicant in question, Arthur Lee Clark, of Oxford, Georgia, subsequently was granted a General ticket as KG4IJV. It's not clear when or how Clark obtained credit for the Element 1 (Morse code) examination. The FCC called Clark in for retesting last spring and cancelled his license after he failed to appear.

FCC Special Counsel for Enforcement Riley Hollingsworth wrote volunteer examiners William K. Ferguson, W9UNH, Alice Childs, AF4HB, and Walter J. Childs, KQ4SF, on November 12 asking them to provide further information on the examination session at which Clark had qualified for General. In a separate letter November 12 to ARRL VEC Manager Bart Jahnke, W9JJ, Hollingsworth requested that the ARRL VEC not accept the services of the three VEs involved in the Pelham session at least until the FCC concludes its investigation. Suspension of volunteer examiners is standard procedure during such inquiries.

Among other things, Hollingsworth asked Ferguson and the Childses to describe any conversations they might have had with Clark as well as any documents or materials Clark may have had before, during or after the examination session. Hollingsworth also wanted the three VEs to tell where and how the test session was administered, "including the location of VEs during the examination and the names and addresses of anyone else present before and during the examination."

Records indicate that from January 1999 until March 2000, Clark took the Technician exam seven times under another VEC and never answered more than approximately half the questions correctly. At the ARRL VEC session on June 20, 2000, however, he was credited with obtaining a perfect score, then passing his General with only one wrong answer.

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MARCONI TRANSMISSION CENTENNIAL...

(Continued from page 1)

station for the full period," he said. The special event station will open to the public from 9 AM until 5 PM EST (1400-2200 UTC).

An Amateur Radio on the International Space Station (ARISS) school contact--the first of the new year with US students--is to be scheduled during the weeklong celebration. Doherty says that selected students from three Cape Cod high schools will speak via KM1CC with a member of the new Expedition 6 ISS crew. I.

Marconi's daughter, Princess Elettra Marconi, is scheduled to attend the a reenactment of the ground breaking wireless transmission on January 18, when KM1CC will transmit the text of Roosevelt's original message to King Edward VII.

KM1CC QSL card requests from US amateurs (include a self addressed, stamped envelope) go via Barbara Dougan, KB1GSO, Cape Cod National Seashore, 99 Marconi Site Rd, Wellfleet, MA 02667. DX sta-

tions are invited to QSL via the W1 QSL Bureau.

Additional details are on the Marconi Radio Club Web site <http://personal.tmlp.com/k1vv/w1aa>.



NINE YEAR OLD PASSES EXTRA

Source: ARRL Letter

Nine-year-old makes Extra: Elizabeth Harper of Vinemont, Alabama, became one of the nation's youngest Amateur Extra-class licensees during the Montgomery Amateur Radio Club hamfest examination session November 9. Accompanying the nine-year-old on her upgrade journey were her parents, Anthony, NO2M, and Sondra Harper, KA4EIC. There was a lot of excitement as the volunteer examiners from the Montgomery CAVEC group graded her Element 4 answer sheet, then re-checked it twice more. A General licensee at the time of the session, Elizabeth also might hold the distinction of being the only youngster her age now working on her third ham radio call sign. When she sat for the Extra, she was KG4NAU. The FCC issued her a new sequential call sign, AG4WP, which she held for about three weeks until the FCC granted her vanity application. Elizabeth now is AK3H.--Steve Padgett, K4NM

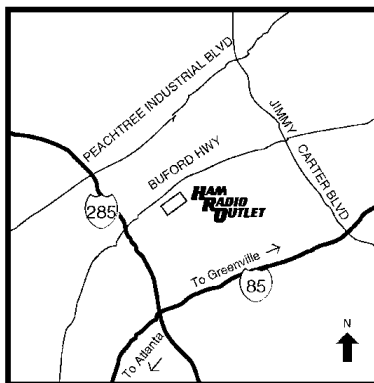


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METRO TESTING SESSIONS

Call ahead to verify session and be prepared with the appropriate forms and required papers. A small fee may be charged. Check with the VEC

First Sunday WCARS VEC
2:00 PM (Except July and September)
Johnson High School
3305 Poplar Springs Road, Gainesville
Terry Jones, W4TL (770)967-6364

First Thursday – EVEN # MONTHS 7:00 PM
Fayette County Repeater Assn, ARRL VEC
Peachtree City Library, downstairs
Ed Ferguson, N4YTR (edferg@peoplepc.com)

Second Tuesday 7:00 PM
Walton EMC Building
3645 Lenora Church Road, Snellville
Wayne Taylor, WD4CCA (770)498-7759

Second SaturdayCA VEC 8:30 AM
Stone Mountain Methodist Church
5312 West Mountain Street, Stone Mountain
Hal Martin, K14RD (770)978-9160

Second Saturday – ODD # MONTHS 10:00 AM
Fayette County Repeater Assn, ARRL VEC
Peachtree City Library, downstairs
Jan Dubroca(770 502-0760) jan.dubroca@delta-air.com

Third SaturdayCA VEC 9:00 AM
Marietta First United Methodist Church
Room 305
56 Whitlock Avenue, Marietta
Larry Huff, WA4CQZ (770)955-3171

Fourth Tuesday ARRL VEC 7:00 PM
United Way Service Center
6279 Fairburn Road, Douglasville
Jessie Clower, KB4WFK (770)942-6466

Fourth FridayW5YI VEC 7:00 PM
St. John Neumann Church
801 Tom Smith Road, Lilburn
Headphones provided
Howie Gould, W9HG (770)921-8362

Fouth Sunday ARRL VEC 2:30 p.m
Georgia Tech - Student Center
350 Ferst Drive, NW
Atlanta, GA 30332-0458
David Ziskind KE4QLH - 404-966-6864, ke4qlh@arrl.net



ACTIVITIES CALENDAR FOR JANUARY 2002

Always the 4th Saturday! STARS – January, 12pm – 3pm
SCITREK Contact Penn. K4PE

Every Friday: Please join the Atlanta Radio Club for lunch Fridays around noon at the 5 Seasons Restaurant. At I285 and Roswell Rd go south on Roswell Rd, 0.2 mile turn right. 5 Seasons Restaurant drive way is the first driveway past 1 stop light

ONGOING NETS ON ARC REPEATERS

Tuesday
146.82 8:30PM
Theory exam study practice net.

Wednesday

146.82- 8:00PM
YL's FM net

146.82- 9:00PM Southeastern
Linked Repeater Net

Friday

146.82 - PL 146.2 Hz 9:00PM
IRLP for Kids net

Sunday

146.82 8:00PM
224.34/444.825
Regular weekly net

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Ben Dasher shares his many, many years of wisdom at the annual holiday party

RADIO ASTRONOMY PIONEER GROTE REBER, EX-W9GFZ, SK

Source: The ARRL Letter 12-23-02

SOCORRO, NM, Dec 23, 2002-- Grote Reber, ex-W9GFZ, one of the earliest pioneers of radio astronomy, died December 20 in Tasmania, where he had been living. He would have turned 91 December 22. Reber was the first person to build a radio telescope dedicated to astronomy, and his self-financed experiments laid the foundation for today's advanced radio astronomy facilities.

"All radio astronomers who have followed him owe Grote Reber a deep debt for his pioneering work," said National Radio Astronomy Observatory (NRAO) Director Fred Lo. "Radio astronomy has changed profoundly our understanding of the universe." Lo pointed out that Reber was the first to systematically study the sky by observing something other than visible light. "This gave astronomy a whole new view of the universe," he said.

Reber's early efforts eventually produced such landmark discoveries as quasars, pulsars and the remnant "afterglow" of The Big Bang. Lo noted that this year's Nobel prizes in physics recognized scientists who had pioneered X-ray and neutrino observations.

As a radio engineer and avid Amateur Radio operator in Wheaton, Illinois, in the 1930s, Reber was inspired by Karl Jansky's 1932 discovery of natural radio emissions from outer space. The concept of viewing space via radio signals presented Reber--who had worked his share of terrestrial DX--with a whole new challenge that he attacked with vigor.

Analyzing the problem as an engineer, Reber concluded that what he needed was a parabolic dish antenna--something quite uncommon in the 1930s. In 1937, using his own funds, he constructed a nine-meter (31.4 feet) dish antenna in his backyard. The strange contraption attracted the attention of curious neighbors and became somewhat of

a minor tourist attraction, he later recalled.

Using electronics he designed and built that pushed the technical capabilities of the era, Reber succeeded in detecting "cosmic static" in 1939. In 1941, Reber produced the first radio map of the sky, based on a series of systematic observations. His radio astronomy work continued over the next several years. He subsequently pioneered in very long-wavelength radio astronomy, working on his own in Tasmania.

Though not a professional scientist, his research results were published in a number of prestigious technical journals, including *Nature*, the *Astrophysical Journal*, the *Proceedings of the Institute of Radio Engineers* and the *Journal of Geophysical Research*.

Reber also received a number of honors normally reserved for scientists professionally trained in astronomy, including the American Astronomical Society's Henry Norris Russell Lectureship and the Astronomical Society of the Pacific's Bruce Medal in 1962, the NRAO's Jansky Lectureship in 1975, and the Royal Astronomical Society's Jackson-Gwilt Medal in 1983.

Reber's original dish antenna now is on display at the National Radio Astronomy Observatory site in Green Bank, West Virginia, where Reber conducted experimental work in the late 1950s. Society of Amateur Radio Astronomers (SARA) Vice President Tom Crowley, KT4XN, said he was among the many SARA members who got the opportunity to meet Reber and hear his presentation, "The Big Bang is Bunk," at a SARA meeting in Green Bank in 1996. "He was a wonderful gentleman and will be missed by all in the radio astronomy

community," Crowley said.

Crowley says Reber moved to Tasmania in 1954 to pursue his theory that the red shift associated with Doppler effect is caused by photons

from distant astronomical sources striking atoms or molecules on their trip to Earth. "According to Dr Reber when an photon struck a atom or molecule it slowed down and emitted another photon at a much lower frequency 100 kHz to 10 MHz," he said. "Reber believed the lower frequencies



Grote Reber in the 1930s, at the controls of his homemade radio telescope. In 1938, Reber's third receiver, listening at 160 MHz, was successful in detecting radio emission from the Milky Way, confirming Jansky's earlier discovery

could pass through the ozone hole located above Tasmania, and he could prove his theory if he detect a sufficiently large signal at the lower frequencies."

A 1977 paper by Reber, "Endless, Boundless, Stable Universe", is available on the Internet. In it, Reber concluded: "Time is merely a sequence of events. There is no beginning nor ending. The material universe extends beyond the greatest distances we can observe optically or by radio means. It is boundless."

A graduate of Illinois Institute of Tech-

(Continued on page 8)

ATLANTA RADIO CLUB, INC P.O. Box 720398 Atlanta, GA 30358

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MEETING NOTICE January 9, 2003

(Continued from page 6)

nology, Reber had served as a radio station engineer in Chicago. Later, he was a radio physicist with the US National Bureau of Standards. From the 1950 into the 1970s, he received Research Corporation funding for various radio astronomy experiments. Ohio State University conferred an honorary doctorate on Reber on 1962.

All of Reber's scientific papers and records as well as his personal and scientific correspondence are held by the NRAO. These will be exhibited in the observatory's planned new library in Charlottesville, Virginia.

Reber's amateur call sign, W9GFZ, now is held by the NRAO Amateur Radio Club in Socorro. The call sign was used on the air for the first time since the 1930s on August 25, 2000, to mark the dedication of the Robert C. Byrd Green Bank Tele-

scope (see "Ham Radio and the World's Largest Fully Steerable Antenna," by Dave Finley, N1IRZ, QST, Aug 2000). The W9GFZ call sign also was scheduled to be used for a special event that would have put a replica of Jansky's antenna on 15 meters (see "Observatory's Hams Use Historical Replica Antenna for Special Event."). The event was cancelled because of the September 11 terrorist attacks, however.--NRAO news release by Dave Finley, N1IRZ; Tom Crowley/SARA

More resources on Radio Astronomy:

AstroWeb

<http://www.cv.nrao.edu/fits/www/astronomy.htm>

<http://www.gb.nrao.edu/epo/links.html>

<http://www.bambi.net/sara.html>



The telescope was constructed by Grote Reber in 1937 in his back yard in Wheaton, Illinois (a suburb of Chicago). He built the telescope at his own expense while working full time for a radio company in Chicago. This shows the telescope as it was in Wheaton, Ill.